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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,314	06/27/2003	Regis L.F. Brid	13768.411	7350

7590 05/19/2006

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EXAMINER

HILLERY, NATHAN

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,314

Applicant(s)

BRID, REGIS L.F.

Examiner

Nathan Hillery

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: Amendment on 2/28/06.
2. Claims 1 – 48 are pending in the case. Claims 1, 14, 27, 32, and 38 are independent.
3. The objection to the claims has been maintained.
4. The rejection of claims under 35 U.S.C. 112 as being indefinite has been amended as necessitated by amendment.
5. The rejection of claims under 35 U.S.C. 103 as being unpatentable has been amended as necessitated by amendment.

Claim Objections

6. Claims 3, 4, 7, 8, 9, 16, 17, 20, 21, 22, 30, 35 and 36 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 2 and 5 are Markush claims; therefore, it is only necessary to follow one path as set forth in those claims. The path limited by claims 3, 4 and 7 may or may not be followed; thus, claims 3, 4 and 7 do not fully further limit the claim(s) from which they depend. Consequently, the Office will take no further action on the merits with respect to claims 3, 4 and 7 at this time. Claims 8, 9, 16, 17, 20, 21, 22, 30, 35 and 36 are considered substantially similar as claims 3, 4 and 7.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 2176

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 44 and 45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification provides no support for **maintaining a state list with state information that is redundant with state information maintained for each row**. In fact, the specification does not disclose "redundancy" of any kind.

9. **Regarding dependent claim 45**, the claim is rejected for fully incorporating all the deficiencies of the base claim(s) from which it depends.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 18 – 22, 25, 26, 29, 30, 34 – 36 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 18 recites the limitation "the column characteristic object" in line 6. There is insufficient antecedent basis for this limitation in the claim. Consequently, all subsequent recitations of "the column characteristic object" are also rejected.

13. Claim 21 recites the limitation "the row styles" in line 1. There is insufficient antecedent basis for this limitation in the claim. Consequently, all subsequent recitations of "the row styles" are also rejected.

14. Claim 22 recites the limitation "the row states" in line 1. There is insufficient antecedent basis for this limitation in the claim. Consequently, all subsequent recitations of "the row states" are also rejected.

15. Claim 29 recites the limitation "the column characteristic object" in line 6. There is insufficient antecedent basis for this limitation in the claim. Consequently, all subsequent recitations of "the column characteristic object" are also rejected.

16. Claim 34 recites the limitation "the column characteristic object" in line 6. There is insufficient antecedent basis for this limitation in the claim. Consequently, all subsequent recitations of "the column characteristic object" are also rejected.

17. The term "inherent characteristic" in claim 43 is a relative term which renders the claim indefinite. The term "inherent characteristic" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Consequently, the metes and bounds of the inherent characteristics of the cells for a row are unclear.

18. The term "actual characteristic" in claim 43 is a relative term which renders the claim indefinite. The term "actual characteristic" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the

invention. Consequently, the metes and bounds of the actual characteristics of the cells for a row are unclear.

19. The term "compatible" in claim 43 is a relative term which renders the claim indefinite. The term "compatible" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Consequently, the metes and bounds of how the actual characteristics and the inherent characteristics are compatible are unclear.

20. **Regarding dependent claims 19, 20, 25, 26, 30, 35 and 36**, the claims are rejected for fully incorporating all the deficiencies of the base claim(s) from which they depend.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claims 1 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knowlton (US 6157389 A) and in further view of Sekiguchi et al. (US 20010004739 A1).

23. **Regarding independent claim 1,**

a. Knowlton teaches that *A visual image may be represented as an array of r rows by c columns of pixels (picture elements). A known method for compressing such image representative data to reduce the size of the image is*

decimation of the image representative data, i.e. the removal from the image array of regularly spaced rows and/or columns of pixels. For example, to reduce the size of an image by 50% horizontally and vertically, every other row of pixels is deleted, and every other pixel in the remaining rows is also deleted.

*Decimation is simple and fast. However, because the image structure is disregarded, details and legibility of the resulting compressed image are degraded. The inventor has realized that often images contain areas from which image information could be omitted without degrading the detail or legibility of the image. For example, large swaths (either adjacent rows or adjacent columns) of a solid color (e.g. white or black) represent such image information. Such areas will be called blank areas in the remainder of this application (Column 1, lines 17 – 28), compare with **creating a first row object that comprises one or more first cell objects, the first row object for use in organizing the one or more first cell objects and data associated with the one or more first cell objects for presentation within the grid control; creating a second row object that comprises one or more second cell objects, the second row object for use in organizing the one or more second cell objects and data associated with the one or more second cell objects for presentation within the grid control.***

b. Knowlton also teaches that *Image specification data representing each resulting subimage, including: the location and size in the source image array of the subimage, the respective number of pixels to be deleted from each row and*

column of the subimage, the location in the destination image array (which is also stored separately) of the compressed subimage to be generated from this subimage, and other data described below; is then stored for future retrieval. For example, this data may be pushed atop a stack (Column 4, lines 47 – 55),
compare with **storing the data associated with each of the one or more first and second cell objects separately from the first and second cell objects where characteristics information for each corresponding cell object is located.**

c. Knowlton does not explicitly teach **creating a row characteristic object for use in determining how the data associated with the one or more first and second cell objects should be presented within the grid control and creating an index to link the row characteristic object to the first and second row objects such that the row characteristic object is shared between the first and second row objects.**

d. However, Sekiguchi et al. teach that *In an image retrieval system according to the present invention, each piece of input picture data received in the characteristic descriptor producing unit denotes compressed video data which composes one or more intra-frames and one or more inter-frames, both an average value and a standard deviation are produced as one characteristic descriptor of the intra-frames of the video segment in the characteristic descriptor producing unit by extracting an average matrix of pixel values in a prescribed coding area of one intra-frame for each intra-frame of the video segment,*

*calculating a sum of the average matrices of all intra-frames included in the video segment and calculating both the average value of the average matrices and the standard deviation of the average matrices from the sum and the number of intra-frames in the video segment, and one characteristic descriptor of the inter-frames of the video segment is produced in the characteristic descriptor producing unit by extracting a matrix of motion vectors of pixels of the prescribed coding areas of one inter-frame for each inter-frame of the video segment, calculating an average of the motion vectors of each inter-frame of the video segment as a motion vector average, classifying zero run lengths, which are obtained according to a threshold processing for the motion vectors of one inter-frame, into a plurality of classified types of zero run lengths for each inter-frame of the video segment, calculating an average of the motion vector averages and a plurality of classified types of average zero run lengths in the video segment according to the number of inter-frames in the video segment and setting the average of the motion vector averages and the classified types of average zero run lengths as the characteristic descriptor of the inter-frames of the video segment (block 0020), compare with **creating a row characteristic object for use in determining how the data associated with the one or more first and second cell objects should be presented within the grid control.***

e. Sekiguchi et al. teach that *In the reproduction control unit 220, reproduced contents specifying information 221, in which contents specifying information indicating the specifying of contents is included, is produced from the*

*reproduction request information 219. In this case, it is preferred that the reproduced contents specifying information 221 including the contents specifying information be described in the for-retrieval description data file 210 in advance as link information indicating the linking to contents, the contents specifying information be added to retrieval result information 217 when the retrieval result information 217 is presented to the user 232, the contents specifying information- be sent to the client, and the contents specifying information be used as the reproduction request information 219 (block 0302), compare with **creating an index to link the row characteristic object to the first and second row objects such that the row characteristic object is shared between the first and second row objects.***

f. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Knowlton with that of Sekiguchi et al. because such a combination would provide the users of Knowlton with *an image retrieval system and an image retrieval method in which an image retrieval processing can be efficiently performed* (block 0009).

24. **Regarding dependent claims 2 and 6,** Knowlton does not explicitly teach **the row characteristic object comprises presentation information for use in presenting the data associated with the one or more first and second cell objects, and wherein the presentation information is one or more of a row height, row styles or row states.** However, Sekiguchi et al. teach that *In an image retrieval system according to the present invention, each piece of input picture data received in the*

Art Unit: 2176

characteristic descriptor producing unit denotes compressed video data which composes one or more intra-frames and one or more inter-frames, both an average value and a standard deviation are produced as one characteristic descriptor of the intra-frames of the video segment in the characteristic descriptor producing unit by extracting an average matrix of pixel values in a prescribed coding area of one intra-frame for each intra-frame of the video segment, calculating a sum of the average matrices of all intra-frames included in the video segment and calculating both the average value of the average matrices and the standard deviation of the average matrices from the sum and the number of intra-frames in the video segment, and one characteristic descriptor of the inter-frames of the video segment is produced in the characteristic descriptor producing unit by extracting a matrix of motion vectors of pixels of the prescribed coding areas of one inter-frame for each inter-frame of the video segment, calculating an average of the motion vectors of each inter-frame of the video segment as a motion vector average, classifying zero run lengths, which are obtained according to a threshold processing for the motion vectors of one inter-frame, into a plurality of classified types of zero run lengths for each inter-frame of the video segment, calculating an average of the motion vector averages and a plurality of classified types of average zero run lengths in the video segment according to the number of inter-frames in the video segment and setting the average of the motion vector averages and the classified types of average zero run lengths as the characteristic descriptor of the inter-frames of the video segment (block 0020), compare with the row characteristic object comprises presentation information for use in

presenting the data associated with the one or more first and second cell objects, and wherein the presentation information is one or more of a row height, row styles or row states.

25. **Regarding dependent claim 5**, Knowlton teaches that *A visual image may be represented as an array of r rows by c columns of pixels (picture elements). A known method for compressing such image representative data to reduce the size of the image is decimation of the image representative data, i.e. the removal from the image array of regularly spaced rows and/or columns of pixels. For example, to reduce the size of an image by 50% horizontally and vertically, every other row of pixels is deleted, and every other pixel in the remaining rows is also deleted. Decimation is simple and fast. However, because the image structure is disregarded, details and legibility of the resulting compressed image are degraded. The inventor has realized that often images contain areas from which image information could be omitted without degrading the detail or legibility of the image. For example, large swaths (either adjacent rows or adjacent columns) of a solid color (e.g. white or black) represent such image information. Such areas will be called blank areas in the remainder of this application* (Column 1, lines 17 – 28), compare with **creating one or more column objects associated with the one or more first and second cell objects, wherein a cell characteristic for each of the one or more first and second cell objects for use in presenting the data associated with the one or more first and second cell objects can be determined by either the row characteristic object or the column characteristic object.**

26. **Regarding dependent claims 10 and 12**, Knowlton does not explicitly teach **creating a states list that comprises first and second states for the first and second row objects, respectively**. However, Sekiguchi et al. teach that *In cases where the use order of the types of characteristic descriptors in the retrieval is changed, the retrieval result is changed. In this example, because a plurality of video segments well conforming to the user's retrieval request from a viewpoint of the magnitude of motion are selected when the data base is set to an initial state, it is expected that the retrieval result finally presented to the user is reliably most similar to the retrieval request from a viewpoint of the magnitude of motion* (Block 0200), compare with **creating a states list that comprises first and second states for the first and second row objects, respectively**. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Knowlton with that of Sekiguchi et al. because such a combination would provide the users of Knowlton with *an image retrieval system and an image retrieval method in which an image retrieval processing can be efficiently performed* (block 0009).

27. **Regarding dependent claims 11 and 13**, Knowlton does not explicitly teach **the first and second row states include one or more of a read-only, selected, resizable, frozen, enabled or visible, and wherein these states can be either turned on or off**. However, Sekiguchi et al. teach that *The image retrieval method according to the present invention further comprises the steps of preparing pieces of video data as the pieces of input image data, presenting a piece of key image data, which represents each of pieces of video data specified in the retrieval, to the user as*

the retrieval result, receiving a reproduction request indicating a specific key image which is selected by the user from a plurality of key images indicated by the pieces of key image data, reading out a piece of specific video data represented by the specific key image, and decoding and reproducing the piece of specific video data (block 0052), compare with the first and second row states include one or more of a read-only, selected, resizable, frozen, enabled or visible, and wherein these states can be either turned on or off. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Knowlton with that of Sekiguchi et al. because such a combination would provide the users of Knowlton with *an image retrieval system and an image retrieval method in which an image retrieval processing can be efficiently performed* (block 0009).

28. **Regarding claims 14 – 40**, the claims incorporate substantially similar subject matter as claims 1 – 13 and are rejected along the same rationale.

29. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knowlton (US 6157389 A) and Sekiguchi et al. (US 20010004739 A1) as applied to claims 1 – 40 above, and further in view of Hladik (US 20040019590 A1).

30. **Regarding dependent claim 41**, neither Knowlton nor Sekiguchi et al. explicitly teach **determining whether a row can be shared**. Hladik teaches that *Data objects, such as charts and tables often hold numeric data, and tend to share common characteristics such as having rows and columns. Most charts, even if they are formatted as pie charts, bar charts, or any type of chart, have a row and column characteristic* (p 2, paragraph 0023), compare with **determining whether a row can be**

shared. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Knowlton and Sekiguchi et al. with that of Hladik because such a combination would provide the users of Knowlton and Sekiguchi et al. with *a system and method that can retrieve and process a target set of data from a presentation file* (p 1, paragraph 0008).

Allowable Subject Matter

31. Claims 42 – 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

32. Claims 43 – 45 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

33. Applicant's arguments filed 2/28/06 have been fully considered but they are not persuasive.

34. In response to applicant's argument that the cited art (Knowlton and Sekiguchi) is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the cited art is reasonably pertinent to the particular problem with which the applicant was concerned. Particularly, by Applicant's own

admission, the present invention is concerned with memory constraints and issues relating to spreadsheets, tables and other database user interfaces and the cited art is focused on methods for reducing the size of an image (p 16, first paragraph).

35. It should be noted that Knowlton teaches that *A visual image may be represented as an array of r rows by c columns of pixels (picture elements)*. (Column 1, line 17). As known in the art, a table is simply data arranged in columns and rows and a matrix, i.e. the visual image of Knowlton, is simply a two-dimensional array; i.e., an array of rows and columns (definitions of matrix, table and the like can be found at Webopedia.com). Therefore, the cited art is concerned with reducing the size of an image, which can be interpreted as a matrix or table, as is the concern of the present invention by Applicant's own admission as explained above (p 16, first paragraph).

Conclusion

36. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

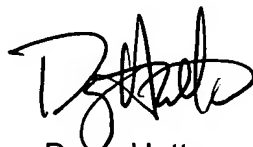
Art Unit: 2176

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (571) 272-4091. The examiner can normally be reached on M - F, 10:30 a.m. - 7:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Doug Hutton
Primary Examiner
Art Unit 2176

NH